RESEARCH, DEVELOPMENT & TECHNOLOGY TRANSFER
QUARTERLY PROGRESS REPORT

Wisconsin Department of Transportation
DT1241 02/2011

INSTRUCTIONS:
Research project investigators and/or project managers should complete a quarterly progress report (QPR) for each calendar quarter during which the projects are active.

WisDOT research program category: ☐ Policy research ☒ Wisconsin Highway Research Program ☐ Other ☐ Pooled fund TPF#		Report period year: 2011 ☒ Quarter 1 (Jan 1 – Mar 31) ☐ Quarter 2 (Apr 1 – Jun 30) ☐ Quarter 3 (Jul 1 – Sep 30) ☐ Quarter 4 (Oct 1 – Dec 31)
Project title: Aesthetic Coatings for Bridge Components		
Project investigator: Dr. Al Ghorbanpoor	Phone: 414-229-4962	E-mail: algh@uwm.edu
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WisDOT contact: Travis McDaniel	Phone: 608-266-5097	E-mail: travis.mcdaniel@dot.state.wi.us
WisDOT project ID: 0092-11-07	Other project ID:	Project start date: 10/21/2010
Original end date: 10/20/2012	Current end date: 10/20/2012	Number of extensions: 0

Project schedule status:
☒ On schedule ☐ On revised schedule ☐ Ahead of schedule ☐ Behind schedule

Project budget status:

Total Project Budget	Expenditures Current Quarter	Total Expenditures	% Funds Expended	% Work Completed
$120,000.00	$5,000.00	$8,000.00	7%	7%

Project description:

The objectives of this study are to investigate methods and products that may be used in the aesthetic and protection coating of bridge components and to develop a guideline for cost-effective bridge coating practices. It is envisioned that a series of coating systems for both steel and concrete will be identified and tested in the laboratory to evaluate their performance under simulated environmental conditions that are similar to those experienced by bridge components in Wisconsin. Wisconsin bridge sites, where coating failures and problems have occurred, will be visited to identify and evaluate the structural details and other factors that have contributed to such coating failures. Upon completion of the testing and evaluation program, guidelines and specifications language will be developed for selection, application, and maintenance of such coating materials. Also, recommendations will be made to WisDOT for implementation of the results of this study.

Progress this quarter (includes meetings, work plan status, contract status, significant progress, etc.):

The research staff has continued the review of available literature concerning standards, guidelines, materials, preparation, application, structural details, coating testing procedures and standards, and long term performance of various coating materials for highway bridges and similar applications. The research staff has gathered additional information on the testing of longer-wave radiation (i.e., infrared and visible) and the necessary equipment and standards needed to perform these tests. The research staff has also completed their meeting with the project oversight committee (POC). During this meeting the questionnaires for regional Wisconsin DOT's, State DOT's, and manufactures was reviewed and revised based on comments and questions from the POC. Also, in the meeting several bridges were identified that are

potential candidates for field visits. Also, contact information has been gathered for regional Wisconsin DOT's, State DOT's, contractors, and manufactures. This contact information has been used to send out the surveys to various Wisconsin DOT Regional offices as well as various state highway offices throughout the U.S. The research staff has already received some responses to the survey. On February 24, 2011, the research staff visited the Coating and Corrosion Laboratory at the Turner Fairbank Highway research Center of the FHWA. During this visit the research staff met with the responsible personnel of the laboratory to learn about the work of the laboratory regarding testing and evaluations of various coating materials.

The current efforts of the research staff also include arrangements for acquisition of required test equipment and setting up the laboratory for coating evaluation for the study. These include equipment for exposure to UV, salt fog, longer wave-length radiations, and support equipment water purification.

Anticipated work next quarter:

The research staff will send out additional survey and collect and summarize the data from the questionnaires sent to Wisconsin DOT regional offices, other State DOT's, contractors, and manufactures. The research team will continue to work on the interim report and include a revised work plan to complete the laboratory and field testing. Additionally, the research staff will continue to work on setting up the facilities and the testing equipment for the laboratory testing phase of the study.

Circumstances affecting project or budget:

None.

Attach / insert Gantt chart and other project documentation

Quarters/Tasks	1	2	3	4	5	6	7	8
1. Literature Review	----------							
2. Survey	------							
3. Interim Report	---------							
4. Laboratory Testing			----------	----------	----------	----------	----------	
5. Future Research						------		
6. Guidelines/Specs						------		
7. Draft Final report						----------		
8. Final Report							----------	

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Staff receiving QPR:	Date received:
Staff approving QPR:	Date approved: